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Class of 2000: Profile of postsecondary graduates and student debt

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Mary Allen and Chantal Vaillancourt
Statistics Canada

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Introduction

Canada has a highly developed postsecondary education system with over half of the adult population in Canada having some kind of postsecondary degree or diploma.[1] In fact, Canada has the highest proportion of adults with college or university qualifications in the OECD.[2] The Canadian education system is characterized by a diversity and flexibility that offers Canadians a variety of ways to pursue their education after high school.

The graduating class of 2000 reflects this diversity. While some young graduates followed a direct path out of high school and on to college or university programs, many graduates had been out of school for some time, or had some previous postsecondary education and labour market experience. Transitions into the labour market after graduation were similarly complex.

This report uses data from the 2002 National Graduates Survey (Class of 2000) to describe the characteristics and backgrounds of college and bachelor graduates. It then looks at their experiences after graduation, focussing on the pursuit of further education, entry into the labour market, and management of student loans.

The National Graduates Survey

The National Graduates Survey (NGS) is designed to measure the short to medium-term labour market outcomes of graduates from Canadian public university, community college and trade-vocational programs. NGS interviews graduates two and five years after graduation. To date, five graduating classes have been surveyed: 1982, 1986, 1990, 1995 and 2000.

This report presents the first results of the 2002 National Graduates Survey (Class of 2000). It looks at graduates who completed the requirements or graduated from a degree, diploma or certificate in 2000 in college or university bachelor programs (including first professional degrees such as Law and Medicine). Data for Master and Doctoral programs are included in tables, but are not discussed in the report itself.

Few comparisons are made in this first release to previous cohorts of the NGS because of changes in population definitions and field of study classifications. In the 2000 cycle of the NGS, graduates who lived in the United States at the time of the survey were included in the survey. These graduates are included in the main body of this report. The description of labour market activity and student loan repayment excludes graduates who have pursued *any* further studies. In previous NGS analysis, only those who had *completed* a further degree or certificate were excluded. Furthermore, the NGS of 2000 graduates uses a different coding structure for fields of study than that used for previous graduating classes.

Section 1: Profile of graduates

In 2000, about 270,000 students graduated from public college and university programs in Canada. Half of these graduates had completed bachelor degrees, 37% received college diplomas and 12% received graduate degrees (Master and Doctorate).

Table 1

Profile of 2000 postsecondary graduates by level of study

	College	Bachelor	Master	Doctorate
Number of graduates	101,400	132,600	29,200	4,200
Female (%)	57	61	58	43
Male (%)	43	39	42	57
Average age at time of graduation (years)	27	26	32	35
Median age at time of graduation (years)	23	23	29	33
Under age 25 at time of graduation (%)	59	63	17	4
Average duration of program if taken full-time (months)	21	40	26	62
In secondary school 12 months prior to entering program (%)	36	44	...	...
Pursued further education after 2000 graduation (%)	26	41	28	11
Completed further education after 2000 graduation (%)	9	15	7	4

Note: Numbers of graduates are rounded to the nearest 100.

Women continue to make up the majority of bachelor (61%) and college (57%) graduates in 2000 as they had in 1995. Not all fields of study reflect the overall male-female split, however. At both college and bachelor levels, there were a number of notable concentrations of men and women in different fields of study. Among bachelor graduates, for example, men made up about three-quarters of the graduating class in Engineering and Computer and Information Services, while nine out of ten Nursing graduates, and a large majority of Psychology and Education graduates were women. (Table A-2).

There are a significant number of older graduates from all areas of postsecondary education.

The typical (median) age of 2000 graduates with degrees from both college and bachelor programs was 23. However, there are a significant number of older students in all areas of postsecondary education. In fact, for both college and bachelor graduates, about 40% of the graduating class was 25 or older when they completed their programs.

While the median age of college and bachelor graduates was the same, the length of their programs differed. On average, college programs lasted 21 months, and bachelor graduates, on average, took 40 months to complete their programs.

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College graduates were thus typically older than bachelor graduates when they entered their programs.

The majority of graduates did not enter their programs right after high school.

As the range of ages of graduates suggests, graduates take a variety of pathways through postsecondary education. The image of the young graduate who finishes high school, goes straight to university or college, finishes in the standard time, and goes straight into the labour market is not the norm for the majority of graduates at either level (college or bachelor).[3] In fact, the majority of graduates at both levels had been out of school for some time prior to starting their programs or they had some postsecondary education prior to enrolling in their program (Figure 1).[4]

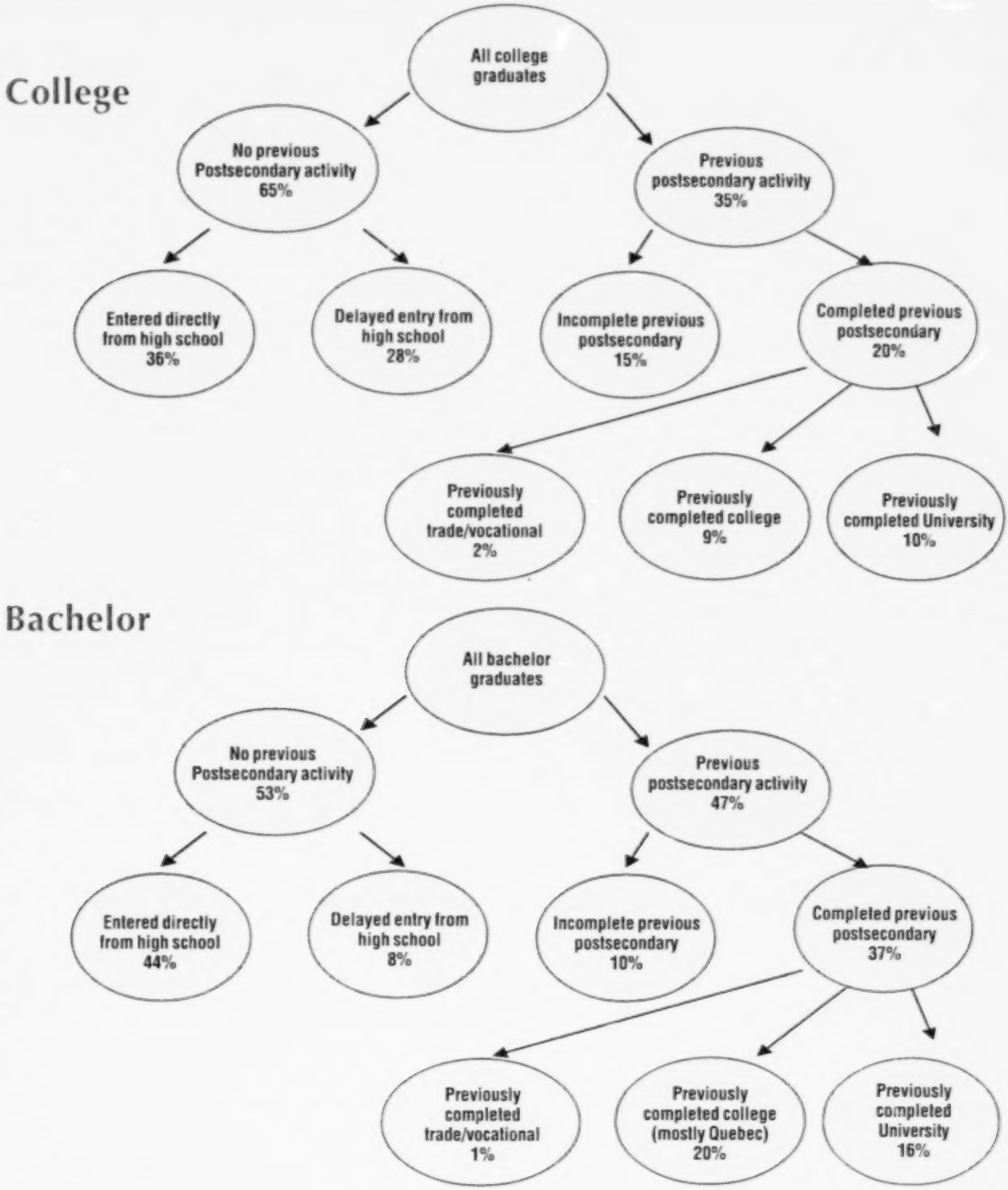
This means that each graduating class has a complex blend of accumulated education and labour market experience. Graduates "enter" the labour market upon graduation with varying amounts of work experience. Some may even have maintained their jobs while pursuing their studies. Others have already received a postsecondary degree or diploma and have returned to school either to obtain more education in their field, or to switch fields. They may have additional credentials, but they may also have accumulated more student debt. Moreover, different fields of study may be dominated by different kinds of pathways and this may be reflected in their immediate labour market outcomes after graduation. This diversity will influence the apparent economic return to different levels and fields of study because some of the observed outcomes will be attributable to differing amounts of work experience and prior credentials.

University graduates were the most likely to have entered their programs directly from high school. Forty-four percent of bachelor graduates from the Class of 2000 started their program within 12 months of completing high school.[5] Even more (47%), however, had some previous postsecondary experience. In fact, 37% had actually completed a previous degree or diploma: 20% with a previous college or CEGEP diploma, and 16% with some level of university diploma, degree or certificate.

About three-quarters of the bachelor graduates who had a previous college or CEGEP diploma graduated from universities in Quebec where completion of CEGEP is generally required for entry into university. In fact, 60% of bachelor graduates from Quebec universities had previously completed college or CEGEP, and another 12% reported having some college or CEGEP. Outside of Quebec, only 6% of graduates reported having completed college or CEGEP prior to entering their program.

The proportion of college graduates who had been out of high school at least a year before entering their current program was even greater. Almost one-third of college graduates (28%) had delayed entry from high school by more than a year. Another 35% of graduates had some previous postsecondary education. One in five had previously completed a degree or diploma – about half from college and the other half from university.

Figure 1
Educational activity prior to entry into program


College
All college graduates
No previous Postsecondary activity 65%
Previous postsecondary activity 35%
Entered directly from high school 36%
Delayed entry from high school 28%
Incomplete previous postsecondary 15%
Completed previous postsecondary 20%
Previously completed trade/vocational 2%
Previously completed college 9%
Previously completed University 10%
Bachelor
All bachelor graduates
No previous Postsecondary activity 53%
Previous postsecondary activity 47%
Entered directly from high school 44%
Delayed entry from high school 8%
Incomplete previous postsecondary 10%
Completed previous postsecondary 37%
Previously completed trade/vocational 1%
Previously completed college (mostly Quebec) 20%
Previously completed University 16%

Note: Figures may not add to totals due to rounding

Section 2: Activities after graduation

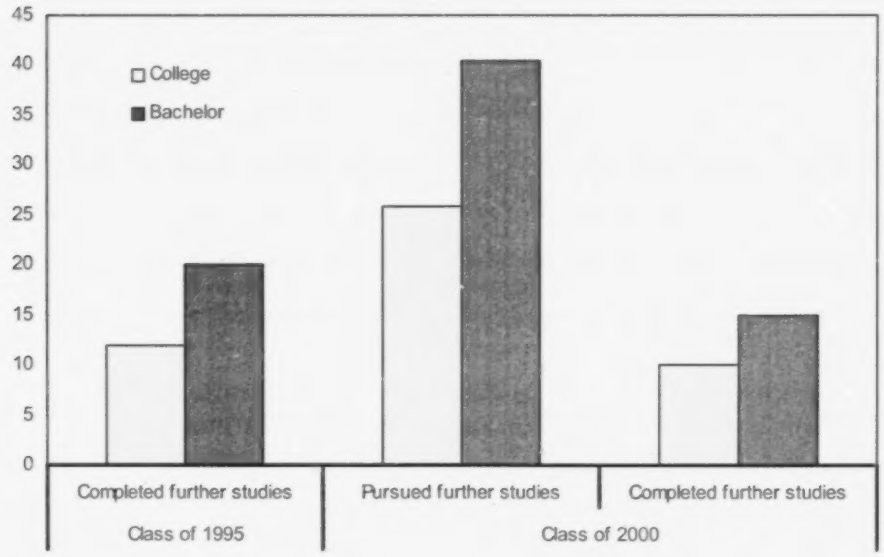
Further education

Many graduates from the Class of 2000 went on to further education

The pathways through postsecondary education are complex. Many Class of 2000 graduates had some previous postsecondary education before starting their programs, and many of the 2000 graduates went on to new programs with their recently acquired degrees and diplomas.

Two in five bachelor graduates (41%) from the Class of 2000 had continued their studies after graduation and 15% of graduates had actually acquired an additional degree or diploma by the time of the interview in 2002. The Class of 2000 was, however, less likely to have completed further education than the Class of 1995. By 1997, 20% of bachelor graduates had received additional qualifications.[6]

Figure 2
Percentage of graduates who pursued further education after graduation



Graduates from college programs were notably less likely to pursue further education. Overall, 26% of college graduates had pursued further studies after graduation. As with the bachelor graduates, they were less likely than the Class of 1995 to have received further certification. For the Class of 1995, 12% of college graduates had received additional qualifications by 1997 compared to about 9% for the Class of 2000. (Figure 2)

The likelihood of pursuing further education differs substantially by field of study. At the college level, only about a quarter of the graduates in most fields pursued further studies. The notable exceptions were graduates from the Humanities where fully 64% of graduates continued with their education.

With bachelor graduates, the likelihood of pursuing further studies differed more markedly between fields of study. Over half of the graduates in Physical and Life Sciences (62%), Psychology (62%), Parks, Recreation and Leisure (58%), the Humanities (56%), and Social Sciences (51%) continued on in school. The graduates who were the least likely to continue were in Education (16%), Computer and Information Sciences (24%), Nursing (24%) and Other Health Professions (23%), Agriculture (26%) and Engineering (28%). (Table A-2)

It is important to consider differences in the likelihood of pursuing further education when comparing the labour market outcomes of graduates by field of study. In some fields, most graduates enter the labour market directly. In other fields, a significant proportion of the graduates will obtain further qualifications. These graduates who continued their education are not included in the analysis of labour market outcomes because many of them are still in school, which impacts their ability to work, or have received additional certification which may influence their labour market activity.

Because the likelihood of continuing in school differs by field of study, caution should be used when comparing outcomes across various disciplines. Taking B.A. graduates as an example, an analysis restricted to B.A. graduates who do not go further may tend to under-value the B.A., because it does not take into account students who go on from there to complete an M.A., Ph.D., law degree and so on.

Information on graduates by Field of Study

Detailed analysis of the labour market outcomes of graduates by field of study is not included in this report. However, a number of tables are provided at the end of the report with information on the characteristics, labour market activity and earnings of graduates by field of study. It should be noted that comparisons of graduates' labour market outcomes by field of study should take into account any differences in the proportion of graduates who pursue further studies and differences in the nature of labour market transitions for graduates from different fields. For example, while graduates from some programs such as Engineering may enter well-paid jobs immediately after graduation, others such as Medicine graduates make slower transitions into their professions. Two and five years after graduation, the labour market outcomes for graduates will reflect differing degrees of entry into the labour market.

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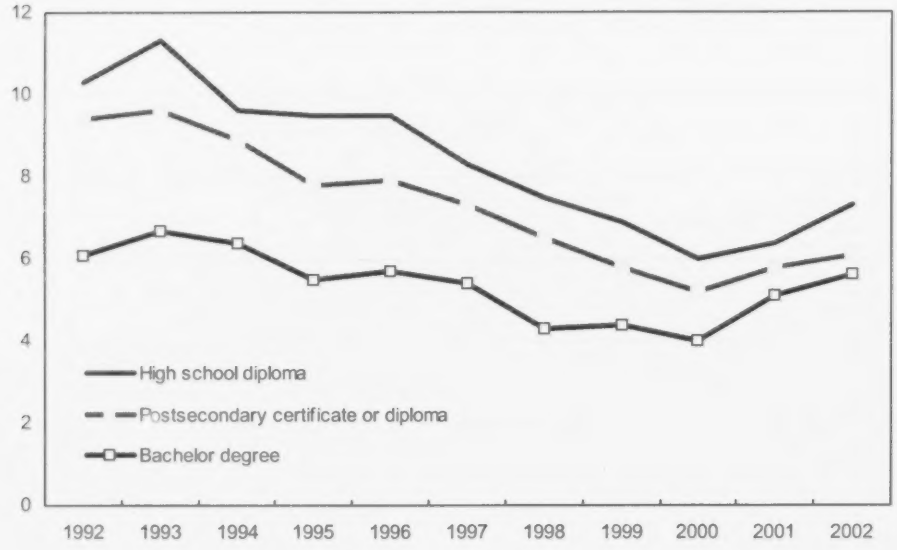
Graduates in the work force

Information from the Labour Force Survey shows that the labour market in Canada went through some notable changes between 1995 and 2002, the years when the 2000 graduates were pursuing their studies and looking for jobs after graduation. The Class of 2000 started their programs and were in school during a period of economic growth which reached a peak by the time they completed their studies in 2000. Work opportunities started to dry up shortly afterwards and unemployment rates rose sharply for 2001 and 2002.

Figure 3
Unemployment rates by level of education, 25 to 44 year olds, 1992 to 2002



Source: Statistics Canada. Labour Force Survey, 1992 to 2002.

What both the Labour Force Survey and the various National Graduates Surveys have shown is that college and bachelor graduates consistently do well in the labour market relative to those without postsecondary education.

College and bachelor graduates were equally likely to be employed in 2002

Nine out of ten college and bachelor graduates who had not taken any further education had jobs two years after graduation. College and bachelor graduates were also equally likely to be unemployed (7%) or working full-time (81%). (Table A-3)

Female college and bachelor graduates were slightly more likely to be employed than their male counterparts two years after graduation. However, they were less likely to be working full-time.

Measuring employment rates with the 2000 NGS

In previous studies using NGS data, labour market indicators suggested that college graduates were more likely to be employed than bachelor graduates two years after graduation. These data did not, however, control for the greater likelihood that bachelor graduates had continued their education.

With the 2000 NGS, more complete information is available on the further pursuit of education after graduation. When employment rates of graduates who have not completed any further studies are compared (but who may still be in school), college graduates from the Class of 2000 are, as in previous NGS cohorts, more likely to be employed than bachelor graduates. However, when graduates who have pursued any further studies (including those currently enrolled) are excluded from the analysis, this college advantage disappears.

Earnings

Earnings of full-time workers

Information on earnings is for graduates working full-time who have not pursued or completed any further education. Earnings information is calculated from the salaries and wages of graduates who were working full-time the week prior to the survey and assuming that they worked for the entire year.

The analysis of earnings uses medians and quartiles to present the typical earnings of graduates. "Median earnings" is the amount which divides the top earning graduates (50%) from the lower earning graduates (50%). In order to present a measure of the range of earnings, quartiles are presented. The range between the bottom and top quartile represents the range of earnings of the "**middle-earning**" half of graduates. A quarter of graduates had earnings below the bottom quartile threshold and another quarter of graduates earn more than the top quartile threshold.

Although college and bachelor graduates were equally likely to find work after graduation, the jobs the bachelor graduates found came with higher earnings. The typical bachelor graduate (median) had a job with annual earnings of $39,000. The "middle-earning" group of bachelor graduates earned between $31,000 and $49,000. By comparison, the typical college graduate earned $31,200 and the "middle-earning" group of college graduates earned between $24,000 and $40,000. (Table A-5)

Women graduates typically earned less than men. However, the gap in earnings was greater for college graduates. Median earnings for female college graduates were 82% of male earnings compared to 88% for bachelor graduates.

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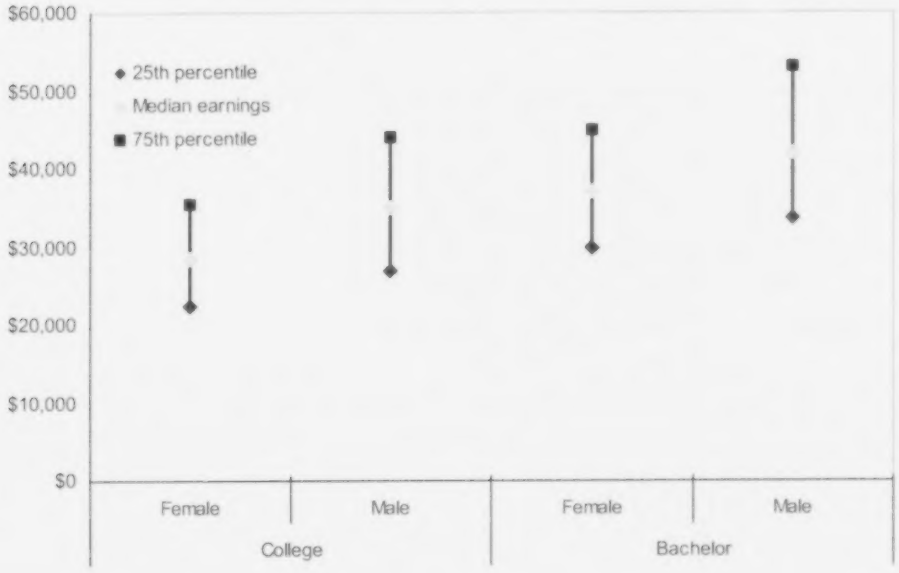
Figure 4
Earnings distribution of graduates of the Class of 2000 working full-time in 2002



Section 3: Paying off student loans

Students finance their education in a variety of ways including employment income, savings, family support, scholarships, and loans from government and private sources. Although student loans are not the most frequently cited source of financial support for postsecondary students, they are an important source of funding for those who do borrow.[7]

About half of college and bachelor graduates left school owing money for their education, mostly from government student loan programs

At the time of graduation in 2000, about half of college and bachelor graduates owed some kind of debt for their education, and most of these graduates owed money to government student loans. (Figure 5) Government student loan programs were the major source of student borrowing: 45% of bachelor graduates and 41% of college graduates owed money to government student loans programs when they graduated.

Information on student loans in the National Graduates Survey (Class of 2000)

Graduates were asked if they had ever borrowed money to finance any of their education through a government-sponsored student loan program. They were then asked how much they owed for all their government-sponsored student loans at the time of graduation (for all programs). In addition, graduates were asked if they had ever borrowed for their education from other sources that they would have to pay back (such as private bank loans or family). They were then asked how much they owed to these sources at the time of graduation. Because some students may have borrowed and paid off loans from previous postsecondary programs prior to graduating from their most recent program, this analysis focuses only on those graduates who reported an amount owing upon graduation. The analysis is also restricted to those graduates who have not pursued any further education and who have thus been required to pay off their loan in the two years since graduation.

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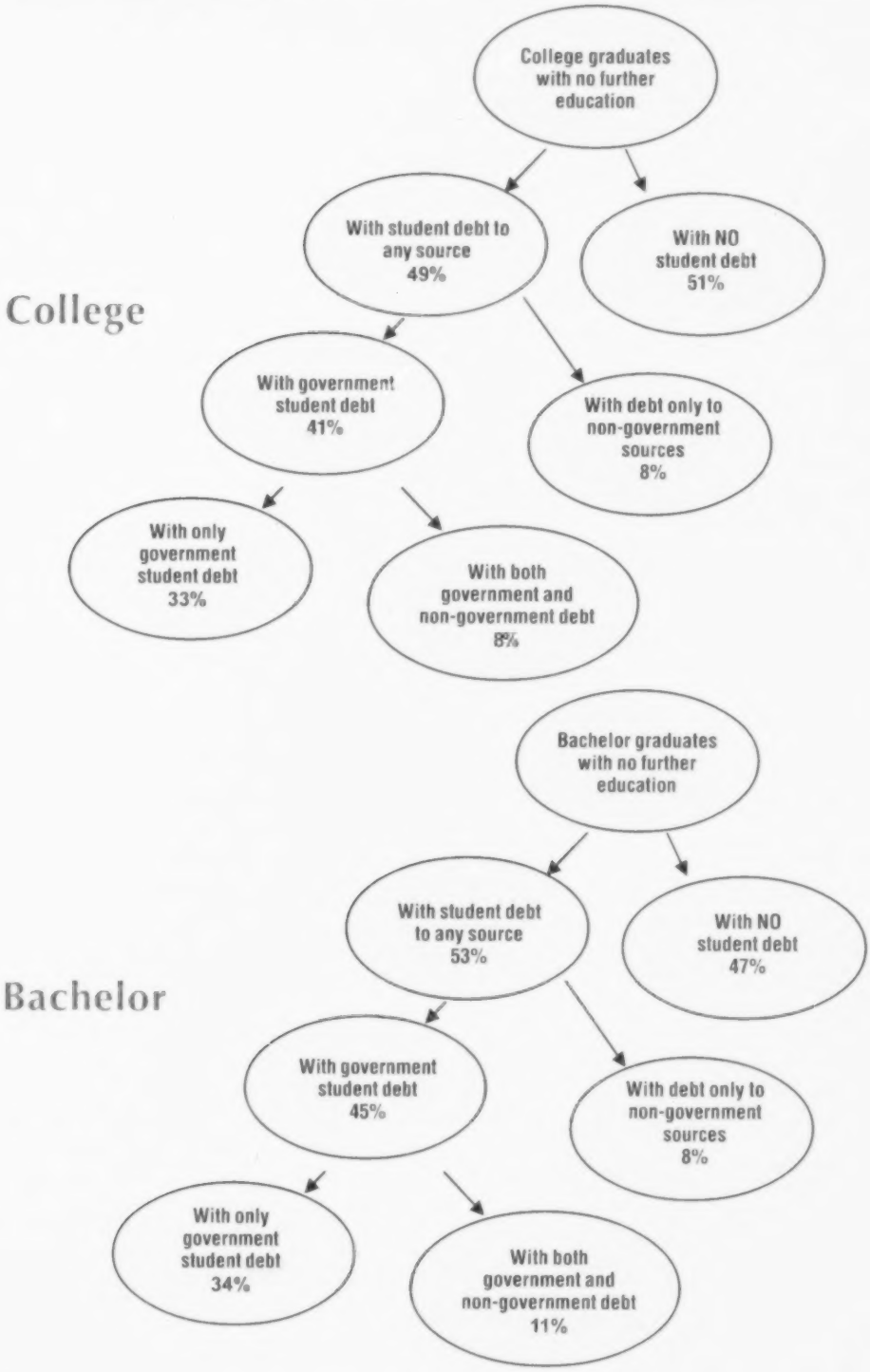
Figure 5
Student debt by level and source


College
College graduates with no further education
With student debt to any source 49%
With NO student debt 51%
With government student debt 41%
With debt only to non-government sources 8%
With only government student debt 33%
With both government and non-government debt 8%
Bachelor
Bachelor graduates with no further education
With student debt to any source 53%
With NO student debt 47%
With government student debt 45%
With debt only to non-government sources 8%
With only government student debt 34%
With both government and non-government debt 11%

Almost one in five college and bachelor graduates, however, borrowed from other sources to finance their education. Among college graduates, while 33% used only government student loans, 8% owed money only to non-government sources and another 8% owed money to both. Bachelor graduates were more likely to turn to both sources for funding. While 34% owed only government student loans, and 8% owed only non-government students loans, 11% owed money to both.

The amounts owed to non-government sources were generally smaller than government loans, and the average debt to all sources is not notably larger than the average government student debt. However, for graduates who owed money to both sources, the combined debt was considerably larger than for those with debt from only one source. (Table A-7)

At the college level, graduates with ONLY government student loans owed an average $12,500 at graduation, while those with ONLY non-government debt owed only $7,100. The 8% of students who had borrowed from BOTH sources owed, on average, $19,200.[8]

For bachelor graduates, those who borrowed from both sources owed substantially more. Average debt for those with only government student loans was $19,300, and for those with only non-government debt, $9,500. However, the 11% of graduates who owed to both sources owed, on average, $32,200.[9]

The rest of the analysis of student debt focuses only on government-sponsored debt. All bachelor graduates from the Class of 2000, who left school with government debt, owed $19,500 in government student loans at the time of graduation. All college graduates with government student debt owed an average of $12,600.

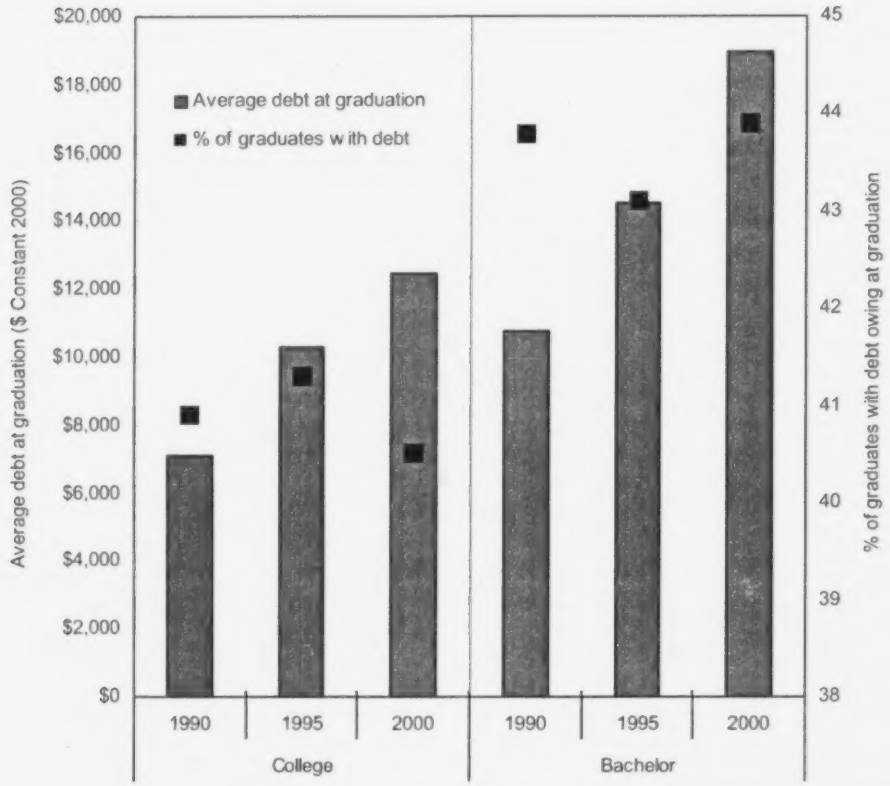
Although there was no change in the percentage of graduates with government student debt, college and bachelor graduates from the Class of 2000 owed more, on average, than borrowers from the Class of 1995.

For both the Class of 1995 and the Class of 2000, just over 40% of college and bachelor students owed money to government student loans programs at the time of graduation. While the same proportion of graduates left school with student debt in 1995 and 2000, the 2000 graduates owed significantly more than their 1995 counterparts, continuing the increases in debt sizes already seen between the graduating classes of 1990 and 1995.[10]

Bachelor graduates saw the greatest increase in the amount of student debt owing upon graduation between 1995 and 2000. For those graduates who had student loans, bachelor graduates owed, on average, 30% more than the Class of 1995, and 76% more than the Class of 1990 (in 2000 constant dollars). Average debts for college graduates were 21% higher than for the Class of 1995, and 76% higher than the Class of 1990. (Figure 6)

Figure 6

Incidence and average amount of government student debt at time of graduation ($ constant 2000) Classes of 1990, 1995, and 2000 Classes of 1990, 1995, and 2000



Note: For comparability, data include only graduates in Canada who have not completed any further education.

Government student loans: Out of school and paying off the debt

There has been much discussion recently about the amount of student debt graduates accumulate and how they manage to pay off their student loans. This section focuses on the repayment of government student loans. How many graduates are able to pay off their student loans more quickly than others? What do we know about these graduates? How many graduates have small loans? How many have very large loans? How do those with large loans manage their debt?

This analysis focuses only on those students who have not pursued any further education (and have therefore been required to pay off their loans and have not accumulated further student debt). Debt holders are not required to make payments on their student debt while they are still pursuing their studies.

Calculation of debt repayment

All debt values are provided in current dollars as reported by respondents. No conversion is made to constant dollars. This is because the use of constant dollar values for calculating debt repayment tends to overstate the amount of debt repaid. The value of the debt remains constant over time and is therefore always in "current" dollars.

Consider, for example, a respondent who owes $1,000 upon graduation and reports remaining debt of $1,000 two years later; that is, a respondent who has not paid off any of his debt. If these values were converted to constant dollars of the graduating year, using say a 3% inflation rate, the remaining debt would be converted to $943. While the respondent has, in reality, paid off none of his debt, a 0% repayment, a repayment calculation based on constant dollars would make it appear that he has paid off about 5% of his debt.

Constant dollars are used, however, for the comparison of amounts owed at graduation for 1995 and 2000 graduates. For comparison of debts between cohorts, debt at graduation (1995) is converted from 1995 to 2000 constant dollars.

For the Class of 2000, one in five graduates paid off their loans owing to the government two years after graduation.

About one in five graduates who had left school with government student loans had paid them off completely two years after graduation. For the graduates who still owed money two years after graduation, about three-quarters of their debt remained to be re-paid. (Table A-8)

The ability to pay off debt is influenced by a number of factors: size of debt, employment, earnings, interest rates, and personal circumstances. It is not surprising, therefore, that the graduates who were able to eliminate their student debt in the first two years following graduation were advantaged in many of these respects.

In the first place, the average debt on graduation for these students was significantly lower than the average debt of students who still owed money two years later. Moreover, fewer of these graduates had started out with large debts of $25,000 or more.

In addition to starting out with lower debt, the graduates who were able to pay it off by 2002 had significantly higher incomes after graduation than those who still owed student debt two years after graduation. On average, personal incomes for 2001 for the graduates who had paid off their debt were 13% higher for bachelor graduates ($4,000) and 24% higher for college graduates ($6,000).

For college graduates, those who paid off their debt were more likely to have a job, but there was no difference in the employment rates for bachelor graduates. Family circumstances and responsibilities may also have an impact on the ability of graduates to pay off their debt quickly. College graduates who had paid off their debt by 2002 were less likely to be married than those who still owed money, and fewer graduates at both levels reported having dependent children.

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Graduates who still owed money for student loans had paid off, on average, about a quarter of their debt.

About one third of all college and bachelor graduates who had not continued their studies owed money on government student loans two years after graduation. This represents about 80% of the students who owed at graduation. The average remaining debt for these graduates in 2002 was $16,300 for bachelor graduates and $10,300 for college graduates. On average, these graduates had paid off about one-quarter of their government student debt.

These graduates had higher debt loads and were more likely to have large debts than those who had succeeded in paying off their debt by 2002. The average debt at graduation for bachelor graduates who still owed two years later was $21,200. For college graduates, it was $13,600.

In contrast, bachelor graduates who had paid off their debt started out with $8,000 less debt, on average, than those who still owed. College graduates who eliminated their debt started out with only half the debt of those who were still paying in 2002 ($6,000 less for college graduates).

Bachelor graduates with remaining debt in 2002 were twice as likely to have left school with large student debt. Over a third of these graduates had owed $25,000 or more at the time of graduation compared to 18% of the graduates who had managed to pay off all of their debt.

These graduates were also more likely to have reported difficulties in debt repayment. Of those with remaining debt, 28% of bachelor graduates and 34% of college graduates reported difficulties repaying their debt compared to only 9% of bachelor and 9% of college graduates who had paid off their debt by 2002.

While debt size is an important factor in the ability to manage debt, it is also important to consider the relationship between income and debt payments, as a measure of the ability to pay. For this analysis, debt-servicing ratios were calculated for each graduate using information on reported personal income for 2001 and the total amount of debt paid in 2001. This represents debt payments as a percentage of income, a measure commonly used in determining whether debt payments represent a burden on an individual.

Interpretation of debt-servicing ratios

Debt-servicing ratios are a function of both payment size and income and are therefore only rough indicators of the ability to pay. In some cases they are high because payments are high (often more than the required minimum payment). In other cases they are high because income is low.

To put these values in context, there are a variety of similar measures used by creditors (including student loan programs) to identify possible debt burden. For example, American studies on student loan debt burden often use a benchmark of 8% as the threshold beyond which student debt becomes difficult to manage. The 8% threshold is cited by a variety of American sources on student debt. See, for example, the National Association of Student Financial Aid Administrators (NASFAA), Scherschel (2000), and Choy (2000).

In Canada, the debt-servicing ratios in the Canadian Student Loan Program (CSLP) interest relief program vary depending on the size of the monthly loan repayment, household income and family size. To be eligible for interest relief, the borrower may revise the terms of payment to reflect a 15-year amortization period. For example, a $20,000 debt will require a monthly payment of approximately $185. Based on the interest relief table, this payment is approximately 10% of the monthly income for a single person or about 6.5% for a family of two or 5% for a family of three.

For those graduates with debt remaining two years after graduation, median debt-servicing ratios were 6% for college and 8% for bachelor graduates. While these values do not exceed the 8% threshold used in a number of American studies, there were still a considerable number of graduates with high debt-servicing ratios. In fact, at the college level, 25% of these graduates had debt-servicing ratios of 10% or higher, and among bachelor graduates the top 25% had ratios exceeding 13%.

The debt-servicing ratios calculated here, however, may not by themselves indicate debt burden. In some cases, certainly, the minimum payment required to service the debt constitutes a relatively high proportion of the debtors income. In other cases, debtors choose to make payments exceeding the minimum payment required and thus pay down their debt at higher rates, or they make lump sum payments from savings, family assistance, or other sources. Further analysis is required to fully understand how graduates are managing their student debt.

Size of student debts and debt repayment

One in seven bachelor graduates owed $25,000 or more in government student loans upon graduating.

The size of government student debt owed upon graduation varied widely. Some students accumulated large debts over the period of their education, while others only had small debts that could be readily paid off after graduation. This section, therefore, looks at debt repayment for graduates with different sizes of student debt, using four different categories of debt. (Table A-9)

Classification of student debts by size of debt

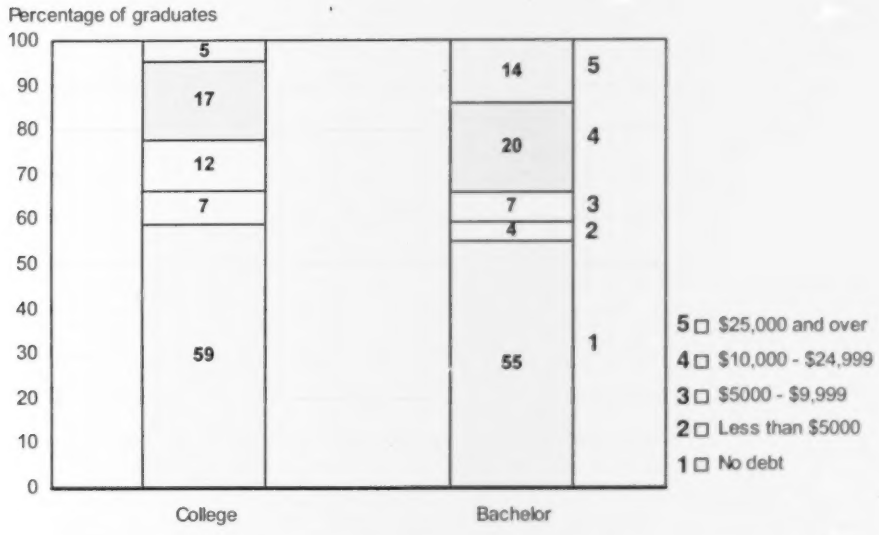
Small debts are defined as less than $5,000; **Medium** debts are between $5,000 and $9,999, **Average** debts are between $10,000 and $24,999 and include median debt sizes for bachelor graduates. Graduates who owed $25,000 or more at graduation are considered to have **Large** debts.

These categories are roughly based on the distribution of debt sizes by level of education such that, at the university level, small debts fall into the bottom 10% of debts, small and medium debts represent approximately the bottom quartile of debts, Average debts fall pretty much within the inter-quartile range (between 25% and 75%) and the threshold for large debts is just below the 75% cut-off.

Bachelor graduates were the most likely to leave school with large student debts. Fourteen percent of bachelor graduates who had not continued their studies owed $25,000 or more when they graduated. (This represents about one-third of bachelor graduates with debt). On average, bachelor graduates with large debts

owed almost $35,000 at time of graduation. In spite of the fact that these graduates were more likely to be employed and had higher earnings than graduates with smaller debts, they had higher debt-servicing ratios (median 11%) and 38% of them reported having difficulties repaying their loans.

Figure 7
Percentage of graduates with varying sizes of government student debt at time of graduation (Class of 2000)



Note: Graduates who pursued further education after their 2000 graduation are excluded.

Almost half of college graduates with student debt owed small- and medium-sized debts (under $10,000). A small number of college graduates (5% of college graduates, or 12% of those with debt) left school with large debts but nearly 60% of these graduates reported having difficulties repaying their debt. College graduates with large debts tended to be older, and were more likely to be married and have children than graduates with smaller debts. Their mean debt at time of graduation was about $32,000, and half of them had debt-servicing ratios of 10% or more.

Doctors in debt

Although there is a great deal of variation in the average size of student debt for graduates in different fields of study, Medicine stands out as having not only the highest proportion of graduates with student loans, but also the highest average debt for graduates at any level of education.

In 2000, fully 80% of Medicine graduates (M.D.s)[11] who were no longer in school owed student debt at the time of graduation, and they owed, on average, $38,200. Three-quarters of Medicine graduates had debts larger than $25,000.

These larger debts are related in part to the fact that tuition fees for medicine programs are significantly higher than for other undergraduate programs. In 1999/2000, for example, the average tuition fees for students in Medicine were $5,894 compared to $3,328 for all undergraduate students.

At the same time, however, the medicine graduates who did not pursue further studies (and about a third did) appeared to be able to pay off their debt faster than the average bachelor graduate. In spite of the size of their debts, over one-quarter (26%) of them had paid off their debt two years after graduation compared to 22% for bachelor graduates overall. On average, medical graduates paid down 40% of their total debt in the two years after graduation compared to only 35% for bachelor graduates in general.

Employment and earnings may lie behind this relatively successful debt management. Almost all medicine graduates who had not continued their studies were employed by 2002 (99%), and their average income in 2001 was almost $46,000 (Table A-11). By comparison, 90% of bachelor graduates with debt were employed in 2002 with average income in 2001 of only about $33,000.

Conclusion

Canadian postsecondary institutions meet a wide variety of educational needs in a wide variety of ways. Graduates from the Class of 2000 reflect a diversity of educational pathways, experiences, and outcomes.

The majority of graduates from public colleges and bachelor programs did not fit the stereotypical image of young Canadians who continue their studies straight from high school to college or university, complete their programs and enter the labour market for the first time. Instead, many students are older, many of the graduates in the Class of 2000 had taken time off after high school, and some had completed previous postsecondary degrees or diplomas. Upon graduation in 2000, many graduates continued with their studies.

For those who went straight into the labour market after graduating, almost all were working two years after graduation (90% of college and bachelor graduates) and most were working full-time (about 80%), although bachelor graduates typically earned more than college graduates.

About half of the college and bachelor graduates from the Class of 2000 carried student debt when they graduated. Just over 40% owed money to government student loan programs, about the same proportion as for the Class of 1995. Average debt sizes were notably higher, however, than for the 1995 college and bachelor graduates.

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Two years after graduation, about one in five borrowers from the Class of 2000 had paid off their government student loans completely. Not surprisingly, graduates who managed to do so had started out with smaller than average debts, and they had higher incomes than the graduates who still owed money in 2002.

A small, but notable, proportion of graduates left school with large student debts. Fourteen percent of bachelor graduates and 5% of college graduates who had not continued their studies owed $25,000 or more when they graduated. In spite of the fact that these students had higher than average incomes, they were more likely to report difficulties repaying their loans.

References

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Scherschel, Patricia (2000) *Student debt levels continue to rise: Stafford indebtedness: 1999 Update.* USA Group Foundation.

APPENDIX A: TABLES

The enclosed tables are based on the National Graduates Survey (Class of 2000).

Symbols and abbreviations

... not applicable

x suppressed to meet confidentiality requirements of the *Statistics Act*

* numbers marked with this symbol have a coefficient of variation between 16.6% and 25% and are less reliable than unmarked numbers.

** numbers marked with this symbol have a coefficient of variation greater than 25% and less or equal to 33.3% and are very unreliable

F too unreliable to be published (coefficient of variation surpasses 33.3%)

0 nul, zero or too small to be expressed

Coefficients of variation (CV) provide a measure of the reliability of the estimate, taking into account sampling variability. In order to estimate whether two values are statistically significantly different, the following formula can be applied to approximate a 95% confidence interval:

$Y \pm 2 (CV \times Y)/100$, where Y is the estimate

This approximate confidence interval gives a range within which the true value in the population is likely to fall. If two confidence intervals do no overlap, then there is a significant statistical difference between the two estimates. It should be noted that this formula is approximate because it estimates a confidence interval that is slightly higher than the 95% level of confidence. As a result, there is a small risk that a significant difference will be identified as insignificant.

For example, with a coefficient of variation of 16%, an estimate such as "30% of graduates" would be accurate ±9.6%, 95 times out of 100 [± 2 (16 x 30)/100]. With a coefficient of variation of 33%, this estimate would be accurate ±19.8%, 95 times out of 100 [± 2 (33 x 30)/100].

Fields of study

Fields of study are classified according to the new Classification of Instructional Programs (CIP). Data are presented according to a standard grouping for all levels of study. These groupings are shown in bold in the tables. Additional information is provided for selected individual fields of study which comprise these groupings at each level. For example, for the "Architecture, Engineering and Related

Technologies" grouping, the majority of college graduates in this group are in Engineering Technologies or Mechanic and Repair Technologies. At the university level, this grouping is comprised mostly of graduates in Architecture and Engineering.

Small sample sizes at the detailed level of fields of study mean that these data are subject to high coefficients of variation. Differences in estimates between detailed fields of study may not be statistically significant, particularly where information is based on the responses of a very few graduates, such as in the case of unemployment rates.

Table A-1

Profile of 2000 postsecondary graduates by level of study

	College	Bachelor	Master	Doctorate
Number of graduates	101,400	132,600	29,200	4,200
Female (%)	57	61	58	43
Male (%)	43	39	42	57
Average age at time of graduation (years)	27	26	32	35
Median age at time of graduation (years)	23	23	29	33
Under age 25 at time of graduation (%)	59	63	17	4
Average duration of program if taken full-time (months)	21	40	26	62
In secondary school 12 months prior to entering program (%)	36	44	...	...
Pursued further education after 2000 graduation (%)	26	41	28	11
Completed further education after 2000 graduation (%)	9	15	7	4

Note: Numbers of graduates are rounded to the nearest 100.

Table A-2

Profile of 2000 graduates by level of study and field of study (major fields and selected minor fields)

	Number of graduates	Female (%)	Age at graduation			Pursued further education (%)
			Average age	Median age	Under 25 (%)	
College						
Total	101,400	57	27	23	59	26
Education	5,900	93	27	22	60	25
Visual and Performing Arts, and Communications Technologies	6,000	64	25	22	69	29
Humanities	1,700	66	25	23	62	64
Social and Behavioural Sciences, and Law	5,300	70	26	23	59	21
Communications, Journalism, and Related Programs	2,300	54	24	22	69	20*
Legal Professions and Studies	1,500	88	27	25	50	14**
Business, Management and Public Administration	26,400	70	26	23	64	32
Physical and Life Sciences, and Technologies	1,300	62	24	22	71	26
Mathematics, Computer and Information Sciences	9,800	38	29	26	45	23
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	9,400	37	28	26	46	24
Architecture, Engineering and Related Technologies	19,300	14	26	23	61	21
Engineering Technologies/Technicians	10,000	15	26	23	61	24
Mechanic and Repair Technologies/Technicians	4,000	8*	26	23	64	18
Agriculture, Natural Resources and Conservation	3,000	39	25	22	70	26
Agriculture, Agricultural Operations, and Related Sciences	1,600	47	25	21	72	21
Natural Resources and Conservation	1,500	31	24	22	68	32
Health, Parks, Recreation and Fitness	16,000	86	29	25	47	21
Nursing	3,900	91	31	28	33	28
Other Health Professions and Related Clinical Sciences	10,700	89	29	25	46	17
Personal, Protective and Transportation Services	6,500	45	25	22	71	24
Personal and Culinary Services	2,600	62	26	22	63	18
Security and Protective Services	3,400	36	23	21	80	31
Other	F	F	F	F	F	F
Bachelor						
Total	132,600	61	26	23	63	41
Education	16,100	73	27	25	50	16
Visual and Performing Arts, and Communications Technologies	6,400	64	27	23	63	38
Humanities	14,100	65	26	23	68	56
Social and Behavioural Sciences, and Law	30,100	69	26	23	63	51
Social Sciences and Related Interdisciplinary Fields	14,000	60	26	23	66	51
Psychology and Related Interdisciplinary Fields	8,200	82	25	23	73	62
Legal Professions and Studies	3,300	59	27	26	34	48
Business, Management and Public Administration	22,500	56	27	23	59	36
Physical and Life Sciences, and Technologies	11,300	58	23	23	82	62
Mathematics, Computer and Information Sciences	4,800	33	26	23	61	30
Mathematics and Statistics and Related Interdisciplinary Fields	1,500	44	24	23	80	46
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	3,300	27	27	24	53	24
Architecture, Engineering and Related Technologies	9,400	25	25	23	72	29
Architecture and Related Services and Related Interdisciplinary Studies	700	37*	25	23	78	38*
Engineering	8,300	24	24	23	72	28
Agriculture, Natural Resources and Conservation	3,400	50	25	23	73	35
Agriculture, Agricultural Operations, and Related Sciences	1,600	41	24	23	75	26
Natural Resources and Conservation	1,900	58	25	23	72	42
Health, Parks, Recreation and Fitness	13,600	74	27	24	54	34
Medicine	900	47	27	26	16	36
Nursing	4,500	91	29	26	42	24
Other Health Professions and Related Clinical Sciences	4,200	73	28	25	47	23
Parks, Recreation, Leisure and Fitness Studies	3,800	64	23	23	87	58
Personal, Protective and Transportation Services	600**	62**	28	28	34	F
Other	200*	80	31	24*	54*	50**

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Table A-2 (concluded)

Profile of 2000 graduates by level of study and field of study (major fields and selected minor fields)

	Number of graduates	Female (%)	Age at graduation			Pursued further education (%)
			Average age	Median age	Under 25 (%)	
Master						
Total	29,200	58	32	29	17	28
Education	4,400	74	37	37	7**	21
Visual and Performing Arts, and Communications Technologies	900	71	30	27	25*	36*
Humanities	2,800	61	33	29	17	45
Social and Behavioural Sciences, and Law	4,300	70	30	26	31	42
Business, Management and Public Administration	8,000	47	33	30	14	17
Physical and Life Sciences, and Technologies	1,900	56	27	26	22	46
Mathematics, Computer and Information Sciences	1,100	44	30	27	24	24
Mathematics and Statistics and Related Interdisciplinary Fields	300	31	28	25	33	33
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	400	30	31	28	23*	25
Library Science	400	68	30	28	20*	17*
Architecture, Engineering and Related Technologies	2,300	28	30	27	11	24
Architecture and Related Services and Related Interdisciplinary Studies	400	50	31	29	x	14*
Engineering	1,900	23	29	27	12*	25
Agriculture, Natural Resources and Conservation	1,000	43	31	29	5*	21
Agriculture, Agricultural Operations, and Related Sciences	300	46	31	29	x	22*
Natural Resources and Conservation	600	42	31	29	6**	21*
Health, Parks, Recreation and Fitness	2,300	76	31	28	21*	25
Other Health Professions and Related Clinical Sciences	1,100	75	32	28	19	16
Parks, Recreation, Leisure and Fitness Studies	500*	65	27	25	46**	40**
Personal, Protective and Transportation Services	F	F	F	F	F	F
Other	x	x	x	x	x	x
Doctorate						
Total	4,200	43	35	33	4	11
Education	200	69	43	44	F	x
Visual and Performing Arts, and Communications Technologies	F	x	F	F	F	x
Humanities	500	53	38	37	F	7*
Social and Behavioural Sciences, and Law	800	57	38	36	F	5
Business, Management and Public Administration	100	51	37	35	F	x
Physical and Life Sciences, and Technologies	1,000	32	32	31	x	11
Mathematics, Computer and Information Sciences	200	x	34	32	F	x
Architecture, Engineering and Related Technologies	500	15	34	33	x	x
Engineering	500	14	34	33	x	x
Agriculture, Natural Resources and Conservation	200	32	36	36	F	x
Health, Parks, Recreation and Fitness	700	54	30	28	20	29
Other Health Professions and Related Clinical Sciences	200	49	33	31	F	13*
Personal, Protective and Transportation Services	F	F	F	F	F	F
Other	x	x	x	x	x	x

Note: Fields of study in bold represent major fields of study, while non-bolded fields represent a sub-set of the major field of study.
Numbers of graduates are rounded to the nearest 100.

Table A-3

Labour force activity of 2000 graduates in 2002 by gender and level of study

	College	Bachelor	Master	Doctorate
Number of graduates	75,000	78,900	20,900	3,700
Employed (%)	90	90	91	90
Employed full-time (%)	81	81	84	82
Employed part-time (%)	9	8	7	6
Out of the labour force (%)	3	4	3	3
Unemployment rate	7	7	5	6
Number of male graduates	32,100	31,300	8,800	2,200
Employed (%)	89	89	94	92
Employed full-time (%)	84	83	90	86
Employed part-time (%)	4	5	3	4
Out of the labour force (%)	3*	3*	2*	2
Unemployment rate	9	8	4	5
Number of female graduates	42,900	47,500	12,100	1,600
Employed (%)	91	90	89	88
Employed full-time (%)	78	79	79	76
Employed part-time (%)	12	10	9	9
Out of the labour force (%)	4	5	5	5
Unemployment rate	6	6	6	8

Note: The sum of full-time employed and part-time employed may not add up to total employed because data on hours worked are not always reported.

Graduates who pursued further education after their 2000 graduation are excluded from this table, as are graduates for whom a labour force status could not be calculated.

The unemployment rate is the percentage unemployed out of the total of employed and unemployed.

Numbers of graduates are rounded to the nearest 100.

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Table A-4

Labour force activity of 2000 graduates in 2002 by level of study and field of study (major field of study and selected minor fields)

	Number of graduates	Employment rate			Unemployment rate	Out of the labour force
		Full-time	Part-time	Total		
College						
Total	75,000	81	9	90	7	3
Education	4,400	75	16	91	6**	2**
Visual and Performing Arts, and Communications Technologies	4,300	76	9*	85	11*	5**
Humanities	600*	68	F	88	F	x
Social and Behavioural Sciences, and Law	4,200	84	6**	90	8**	F
Communications, Journalism, and Related Programs	1,800	81	F	88	F	x
Legal Professions and Studies	1,300	x	x	94	x	x
Business, Management and Public Administration	18,000	81	8	89	7	4*
Physical and Life Sciences, and Technologies	1,000	x	x	91	F	x
Mathematics, Computer and Information Sciences	7,500	84	6*	91	8*	2*
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	7,100	85	6*	90	8*	2*
Architecture, Engineering and Related Technologies	15,300	85	2*	87	10	3*
Engineering Technologies/Technicians	7,600	84	F	87	11*	F
Mechanic and Repair Technologies/Technicians	3,300	90	F	93	5*	F
Agriculture, Natural Resources and Conservation	2,200	89	F	92	5*	3*
Agriculture, Agricultural Operations, and Related Sciences	1,200	88	F	92	F	F
Natural Resources and Conservation	1,000	x	x	91	8**	x
Health, Parks, Recreation and Fitness	12,600	75	18	94	3*	3*
Nursing	2,800	76	19*	96	x	2**
Other Health Professions and Related Clinical Sciences	8,800	74	19	93	4*	4*
Personal, Protective and Transportation Services	4,900	79	11*	90	5*	5**
Personal and Culinary Services	2,100	74	12*	87	6*	F
Security and Protective Services	2,300	83	F	95	F	x
Other	F	F	F	F	F	F
Bachelor						
Total	78,900	81	8	90	7	4
Education	13,500	74	12	87	9	4
Visual and Performing Arts, and Communications Technologies	4,000	65	18*	83	9*	9**
Humanities	6,300	73	14	88	7*	5*
Social and Behavioural Sciences, and Law	14,800	80	7	88	8*	5*
Social Sciences and Related Interdisciplinary Fields	6,800	79	8**	87	8**	F
Psychology and Related Interdisciplinary Fields	3,100	80	F	88	6**	F
Legal Professions and Studies	1,700	x	x	95	F	x
Business, Management and Public Administration	14,300	89	F	93	5*	2**
Physical and Life Sciences, and Technologies	4,300	81	4**	86	7*	7*
Mathematics, Computer and Information Sciences	3,400	84	F	87	11*	F
Mathematics and Statistics and Related Interdisciplinary Fields	800	x	x	83	F	x
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	2,500	86	F	88	12*	x
Architecture, Engineering and Related Technologies	6,700	88	F	90	8*	F
Architecture and Related Services and Related Interdisciplinary Studies	500*	x	x	98	x	x
Engineering	6,000	89	F	90	8*	F
Agriculture, Natural Resources and Conservation	2,200	90	F	92	F	x
Agriculture, Agricultural Operations, and Related Sciences	1,200	x	x	94	F	x
Natural Resources and Conservation	1,100	x	x	89	F	F
Health, Parks, Recreation and Fitness	9,000	84	12	95	2*	F
Medicine	600	x	x	99	F	F
Nursing	3,400	84	13	97	F	F
Other Health Professions and Related Clinical Sciences	3,200	85	12*	98	F	F
Parks, Recreation, Leisure and Fitness Studies	1,600	74	12**	86	F	F
Personal, Protective and Transportation Services	300**	x	x	F	F	F
Other	100**	x	x	F	F	F

Table A-4 (concluded)

Labour force activity of 2000 graduates in 2002 by level of study and field of study (major field of study and selected minor fields)

	Number of graduates	Employment rate			Unemployment rate	Out of the labour force
		Full-time	Part-time	Total		
Master						
Total	20,900	84	7	91	5	3
Education	3,400	83	8	93	6**	F
Visual and Performing Arts, and Communications Technologies	600*	59	13**	74	F	x
Humanities	1,600	66	14	83	6**	12**
Social and Behavioural Sciences, and Law	2,700	75	10	87	6*	7**
Business, Management and Public Administration	6,600	91	4*	95	3**	2**
Physical and Life Sciences, and Technologies	1,000	91	4**	95	F	x
Mathematics, Computer and Information Sciences	800	84	4**	88	9	x
Mathematics and Statistics and Related Interdisciplinary Fields	200	x	x	83	x	x
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	300	86	F	87	12**	x
Library Science	300	x	x	93	x	x
Architecture, Engineering and Related Technologies	1,800	87	2**	89	8*	3*
Architecture and Related Services and Related Interdisciplinary Studies	300	x	x	95	x	x
Engineering	1,400	x	x	88	9**	4**
Agriculture, Natural Resources and Conservation	800	x	x	91	8	x
Agriculture, Agricultural Operations, and Related Sciences	300	x	x	92	x	x
Natural Resources and Conservation	500	x	x	90	9**	x
Health, Parks, Recreation and Fitness	1,700	85	10	96	F	2**
Other Health Professions and Related Clinical Sciences	900	83	12*	96	x	x
Parks, Recreation, Leisure and Fitness Studies	300**	x	x	93	x	x
Personal, Protective and Transportation Services	F	F	F	F	F	F
Other	x	x	x	x	x	x
Doctorate						
Total	3,700	82	6	90	6	3
Education	200	x	x	92	x	x
Visual and Performing Arts, and Communications Technologies	F	x	x	x	x	x
Humanities	500	64	11	79	15	7
Social and Behavioural Sciences, and Law	700	75	13	90	6	4
Business, Management and Public Administration	100	x	x	96	x	x
Physical and Life Sciences, and Technologies	900	x	x	92	5	4*
Mathematics, Computer and Information Sciences	200	89	F	92	x	x
Architecture, Engineering and Related Technologies	500	x	x	93	7	F
Engineering	500	x	x	92	8*	F
Agriculture, Natural Resources and Conservation	100	x	x	92	x	x
Health, Parks, Recreation and Fitness	500	x	x	93	x	x
Other Health Professions and Related Clinical Sciences	200	x	x	94	x	x
Personal, Protective and Transportation Services	F	F	F	F	F	F
Other	x	x	x	x	x	x

Note: The sum of full-time employed and part-time employed may not add up to all employed because data on hours worked are not always reported.

Graduates who pursued further education after their 2000 graduation are excluded from this table, as are graduates for whom a labour force status could not be calculated.

The unemployment rate is the percentage unemployed out of the total of employed and unemployed.

Fields of study in bold represent major fields of study, while non-bolded fields represent a sub-set of the major field of study.

Numbers of graduates are rounded to the nearest 100.

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Table A-5

Estimated gross annual earnings of 2000 graduates working full-time in 2002, by gender and level of study

	College	Bachelor	Master	Doctorate
	($)	($)	($)	($)
All graduates				
25th percentile	24,000	31,000	41,000	43,500
Median	31,200	39,000	52,000	56,100
75th percentile	40,000	49,000	66,000	71,500
Male				
25th percentile	27,000	33,600	44,200	45,000
Median	35,000	42,000	57,200	57,800
75th percentile	44,000	53,000	75,000	73,000
Female				
25th percentile	22,400	30,000	39,000	42,000
Median	28,600	37,000	50,000	55,000
75th percentile	35,600	45,000	60,000	68,000

Note: Graduates who pursued further education after their 2000 graduation are excluded from this table.
All numbers are rounded to the nearest 100, but analysis is carried out on unrounded values.

Table A-6

Estimated gross annual earnings of 2000 graduates working full-time in 2002, by level of study and field of study (major fields and selected minor fields)

	25th percentile	Median	75th percentile
	($)	($)	($)
College			
Total	24,000	31,200	40,000
Education	20,800	25,000	31,000
Visual and Performing Arts, and Communications Technologies	21,100	28,800	35,500
Humanities	20,800	33,800	42,300
Social and Behavioural Sciences, and Law	22,000	29,000	35,100
Communications, Journalism, and Related Programs	21,600	26,000	35,100
Legal Professions and Studies	22,000	29,000	35,000
Business, Management and Public Administration	22,900	29,500	36,000
Physical and Life Sciences, and Technologies	25,000	31,300	39,000
Mathematics, Computer and Information Sciences	25,700	35,000	43,000
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	25,500	35,000	43,000
Architecture, Engineering and Related Technologies	29,100	37,000	45,400
Engineering Technologies/Technicians	31,000	38,500	47,000
Mechanic and Repair Technologies/Technicians	28,100	35,100	43,700
Agriculture, Natural Resources and Conservation	24,400	31,200	38,200
Agriculture, Agricultural Operations, and Related Sciences	23,400	28,800	35,000
Natural Resources and Conservation	28,600	34,300	40,000
Health, Parks, Recreation and Fitness	25,000	32,000	40,800
Nursing	32,200	39,600	51,200
Other Health Professions and Related Clinical Sciences	23,700	30,200	38,500
Personal, Protective and Transportation Services	20,800	27,000	37,400
Personal and Culinary Services	17,200	22,600	27,000
Security and Protective Services	26,000	33,300	40,600
Other	F	F	F
Bachelor			
Total	31,000	39,000	48,900
Education	34,000	38,000	41,400
Visual and Performing Arts, and Communications Technologies	20,800	28,800	37,000
Humanities	25,200	32,700	41,000
Social and Behavioural Sciences, and Law	27,700	35,000	42,000
Social Sciences and Related Interdisciplinary Fields	26,000	35,000	39,200
Psychology and Related Interdisciplinary Fields	28,600	34,500	41,600
Legal Professions and Studies	39,000	49,500	70,000
Business, Management and Public Administration	31,200	40,000	49,000
Physical and Life Sciences, and Technologies	28,000	35,000	42,000
Mathematics, Computer and Information Sciences	38,000	49,400	56,000
Mathematics and Statistics and Related Interdisciplinary Fields	30,200	40,000	52,000
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	40,000	50,000	60,000
Architecture, Engineering and Related Technologies	42,400	50,000	58,000
Architecture and Related Services and Related Interdisciplinary Studies	31,700	41,600	47,100
Engineering	43,000	50,000	58,000
Agriculture, Natural Resources and Conservation	30,000	36,700	46,000
Agriculture, Agricultural Operations, and Related Sciences	25,000	36,000	42,000
Natural Resources and Conservation	30,200	38,000	50,000
Health, Parks, Recreation and Fitness	39,000	45,900	54,600
Medicine	40,000	45,800	48,000
Nursing	42,000	47,300	54,000
Other Health Professions and Related Clinical Sciences	40,000	49,100	60,000
Parks, Recreation, Leisure and Fitness Studies	27,300	33,000	38,000
Personal, Protective and Transportation Services	x	x	x
Other	x	x	x

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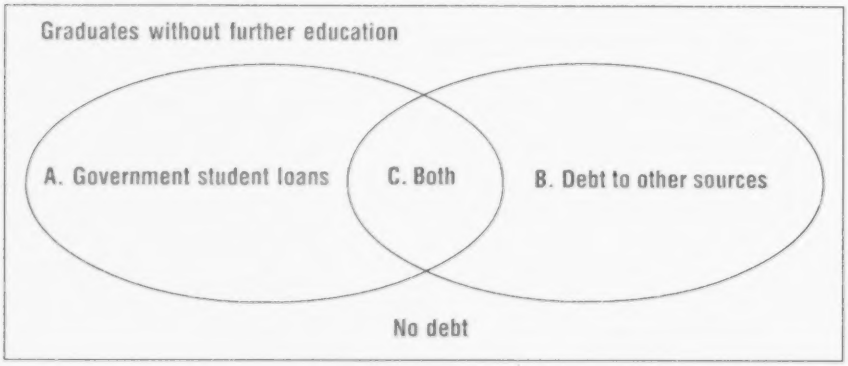
Table A-6 (concluded)

Estimated gross annual earnings of 2000 graduates working full-time in 2002, by level of study and field of study (major fields and selected minor fields)

	25th percentile	Median	75th percentile
	($)	($)	($)
Master			
Total	41,000	52,000	66,000
Education	41,600	54,000	65,000
Visual and Performing Arts, and Communications Technologies	27,100	36,000	39,500
Humanities	30,000	40,000	50,000
Social and Behavioural Sciences, and Law	36,400	45,000	57,000
Business, Management and Public Administration	48,000	60,000	80,000
Physical and Life Sciences, and Technologies	36,000	44,700	54,000
Mathematics, Computer and Information Sciences	41,500	51,000	65,000
Mathematics and Statistics and Related Interdisciplinary Fields	46,000	51,600	68,000
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	48,000	60,000	72,000
Library Science	37,500	43,200	51,000
Architecture, Engineering and Related Technologies	45,000	52,900	66,000
Architecture and Related Services and Related Interdisciplinary Studies	38,200	45,000	52,900
Engineering	47,000	55,000	70,000
Agriculture, Natural Resources and Conservation	39,000	47,000	55,000
Agriculture, Agricultural Operations, and Related Sciences	39,500	47,000	60,000
Natural Resources and Conservation	38,000	45,600	55,000
Health, Parks, Recreation and Fitness	45,000	52,000	62,000
Other Health Professions and Related Clinical Sciences	45,000	51,000	59,600
Parks, Recreation, Leisure and Fitness Studies	41,600	44,000	52,000
Personal, Protective and Transportation Services	F	F	F
Other	x	x	x
Doctorate			
Total	43,500	56,100	71,500
Education	50,000	62,000	72,000
Visual and Performing Arts, and Communications Technologies	x	x	x
Humanities	40,000	51,000	60,000
Social and Behavioural Sciences, and Law	49,000	58,000	68,000
Business, Management and Public Administration	52,000	64,000	78,000
Physical and Life Sciences, and Technologies	38,000	48,500	61,200
Mathematics, Computer and Information Sciences	52,000	65,000	75,300
Architecture, Engineering and Related Technologies	53,500	65,000	80,000
Engineering	53,600	65,000	80,000
Agriculture, Natural Resources and Conservation	36,400	48,000	58,800
Health, Parks, Recreation and Fitness	41,000	65,000	120,000
Other Health Professions and Related Clinical Sciences	42,000	60,000	80,000
Personal, Protective and Transportation Services	F	F	F
Other	x	x	x

Note: Graduates who pursued further education after their 2000 graduation are excluded from this table.
Fields of study in bold represent major fields of study, while non-bolded fields represent a sub-set of the major field of study.
All numbers are rounded to the nearest 100, but analysis is carried out on unrounded values.

Table A-7
Student debt from all sources, by level of study (Class of 2000)



	College	Bachelor	Master	Doctorate
Number of graduates	75,100	78,900	20,900	3,700
Graduates who owed money for their education to any source (government or non-government)(A+B+C)				
Percentage of graduates who owed student debt to any source	49	53	45	45
Average debt owed to all sources at time of graduation ($)	12,700	20,500	20,300	23,900
Percentage of graduates with debt who had paid it off two years after graduation	20	23	27	28
Average debt remaining two years after graduation for those who still owed ($)	10,600	17,200	17,500	20,700
Graduates who owed student debt to government student loan programs (A+C)				
Percentage of graduates who owed government student loans	41	45	38	38
Average debt owed to government student loan programs at time of graduation ($)	12,600	19,500	18,200	19,000
Percentage of graduates with debt who had paid it off two years after graduation	18	22	28	29
Average debt remaining two years after graduation for those who still owed	10,300	16,300	16,100	16,400
Graduates who owed money to non-government sources for their education (B+C)				
Percentage of graduates who owed non-government student debt	16	19	15	19
Average debt owed to non-government sources at time of graduation ($)	6,800	10,800	14,100	19,300
Percentage of graduates with debt who had paid it off two years after graduation	40	38	39	34
Average debt remaining two years after graduation for those who still owed ($)	6,800	10,600	14,000	17,900
Graduates who owed ONLY government student loan programs (A)				
Percentage of graduates who owed ONLY government student loans	33	34	30	26
Average debt owed to government student loan programs at time of graduation ($)	12,500	19,300	17,600	17,900
Percentage of graduates with debt who had paid it off two years after graduation	17	22	27	32
Average debt remaining two years after graduation for those who still owed ($)	10,400	16,300	153,000	15,300

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Table A-7
Student debt from all sources, by level of study (Class of 2000)

	College	Bachelor	Master	Doctorate
Graduates who owed ONLY to non-government sources for their education (B)				
Percentage of graduates who owed ONLY non-government student debt	8	8	7	7
Average debt owed to non-government sources at time of graduation ($)	7,100	9,500	14,400	15,400
Percentage of graduates with debt who had paid it off two years after graduation	42	45	47	39
Average debt remaining two years after graduation for those who still owed ($)	7,200	8,600	14,300	14,400
Graduates who owed to BOTH government and non-government sources for their education (C)				
Percentage of graduates who owed BOTH government and non-government student debt	8	11	8	12
Average debt owed to both sources at time of graduation ($)	19,200	32,200	35,100	42,800
Percentage of graduates with debt who had paid it off two years after graduation	10*	8	10*	10
Average debt remaining two years after graduation for those who still owed ($)	16,300	28,300	33,500	38,800

Note: Graduates who pursued further education after their 2000 graduation are excluded from this table.
Averages and numbers are rounded to the nearest 100, but analysis is carried out on unrounded values.

Table A-8

Profile of 2000 graduates who owed money to government student loans at graduation, by level of study

	Graduates with debt remaining two years after graduation	Graduates without debt two years after graduation	Total graduates owing at graduation
College			
Number of graduates	23,500	5,100	28,600
Average debt at graduation ($)	13,600	7,900	12,600
Large debt at graduation - $25,000 and over (%)	14	F	12
Average debt two years after graduation ($)	10,300	...	8,500
Large debt two years after graduation - $25,000 and over (%)	6	...	5
Percentage of debt paid off two years after graduation	24	100	33
Reported difficulties repaying debt (%)	34	9*	30
Employed in 2002 (%)	88	94	89
Without income in 2001 (%)	1**	x	1
Average amount paid in 2001 ($)	1,900	...	...
Average income in 2001 ($)	25,800	32,000	26,900
Ratio of debt payments to income	7	...	...
Debt servicing ratio – 25th percentile	3	...	...
Debt servicing ratio – Median	6	...	...
Debt servicing ratio – 75th percentile	10	...	...
Average age at graduation (years)	26	26	26
Median age at graduation (years)	24	23	24
Married or living common-law (%)	37	34	36
With dependent children (%)	28	21	27
With previous postsecondary education (%)	39	40	39
Bachelor			
Number of graduates	26,400	7,400	33,900
Average debt at graduation ($)	21,200	13,200	19,500
Large debt at graduation - $25,000 and over (%)	35	18	31
Average debt two years after graduation ($)	16,300	...	12,700
Large debt two years after graduation - $25,000 and over (%)	22	...	18
Percentage of debt paid off two years after graduation	23	100	35
Reported difficulties repaying debt (%)	28	9*	24
Employed in 2002 (%)	90	90	90
Without income in 2001 (%)	1*	F	1
Average amount paid in 2001 ($)	2,900	...	...
Average income in 2001 ($)	32,500	36,700	33,400
Ratio of debt payments to income	9	...	...
Debt servicing ratio – 25th percentile	4	...	...
Debt servicing ratio – Median	8	...	...
Debt servicing ratio – 75th percentile	13	...	...
Average age at graduation (years)	26	26	26
Median age at graduation (years)	24	24	24
Married or living common-law (%)	37	38	38
With dependent children (%)	18	14	17
With previous postsecondary education (%)	58	54	57

Table A-8 (concluded)

Profile of 2000 graduates who owed money to government student loans at graduation, by level of study

	Graduates with debt remaining two years after graduation	Graduates without debt two years after graduation	Total graduates owing at graduation
Master			
Number of graduates	5,600	2,100	7,700
Average debt at graduation ($)	20,600	11,800	18,200
Large debt at graduation - $25,000 and over (%)	32	10	26
Average debt two years after graduation ($)	16,100	...	11,700
Large debt two years after graduation - $25,000 and over (%)	21	...	15
Percentage of debt paid off two years after graduation	22	100	36
Reported difficulties repaying debt (%)	25	x	20
Employed in 2002 (%)	89	92	90
Without income in 2001 (%)	x	x	x
Average amount paid in 2001 ($)	3,000	...	...
Average income in 2001 ($)	39,400	48,700	41,900
Ratio of debt payments to income	8	...	...
Debt servicing ratio – 25th percentile	3	...	...
Debt servicing ratio – Median	6	...	...
Debt servicing ratio – 75th percentile	11	...	...
Average age at graduation (years)	29	30	29
Median age at graduation (years)	27	28	27
Married or living common-law (%)	48	59	51
With dependent children (%)	20	27	22
With previous postsecondary education (%)	94	97	95
Doctorate			
Number of graduates	1,000	400	1,400
Average debt at graduation ($)	21,200	13,700	19,000
Large debt at graduation - $25,000 and over (%)	32	15	27
Average debt two years after graduation ($)	16,400	...	11,600
Large debt two years after graduation - $25,000 and over (%)	22	...	15
Percentage of debt paid off two years after graduation	23	100	39
Reported difficulties repaying debt (%)	21	7*	17
Employed in 2002 (%)	90	94	91
Without income in 2001 (%)	F	F	1
Average amount paid in 2001 ($)	3,100	...	...
Average income in 2001 ($)	56,600	60,000	57,600
Ratio of debt payments to income	5	...	...
Debt servicing ratio – 25th percentile	2	...	...
Debt servicing ratio – Median	5	...	...
Debt servicing ratio – 75th percentile	9	...	...
Average age at graduation (years)	33	33	33
Median age at graduation (years)	32	32	32
Married or living common-law (%)	66	75	68
With dependent children (%)	43	38	41
With previous postsecondary education (%)	99	99	99

Note: Graduates who pursued further education after their 2000 graduation are excluded from this table.
Averages and numbers are rounded to the nearest 100, but analysis is carried out on unrounded values.

Table A-9

Profile of 2000 graduates who owed money to government student loans at graduation, by level of study and size of debt

	Small	Medium	Average	Large
	Less than $5,000	$5,000-$9,999	$10,000 - $24,999	Over $25,000
College				
Number of graduates	**5,200**	**8,100**	**12,000**	**3,400**
Percentage of graduates with debt	18	28	42	12
Average debt at graduation ($)	2,900	6,900	15,100	32,100
Without debt two years after graduation (%)	39	19	11	6
Reported difficulties repaying debt (%)	17	21	33	57
Average debt at graduation for those who still owe two years after graduation ($)	3,300	7,000	15,200	32,200
Average debt at graduation for those without debt two years after graduation ($)	2,400	6,500	14,200	30,500
Average remaining debt two years after graduation for those who still owe ($)	2,300	5,100	11,900	23,600
Employed in 2002 (%)	92	90	88	86
Without income in 2001 (%)	F	x	F	x
Average amount paid in 2001 ($)	800	1,400	2,200	3,300
Average income in 2001 ($)	27,700	25,800	26,600	29,400
Ratio of debt payments to income	3	5	8	11
Debt servicing ratio – 25th percentile	2	3	5	5*
Debt servicing ratio – Median	3	5	7	10
Debt servicing ratio – 75th percentile	5	8	12	14
Average age at graduation (years)	25	25	26	28
Median age at graduation (years)	23	23	24	25
Married or living common-law (%)	34	36	36	40
With dependents (%)	20	20	29	48
With previous postsecondary education (%)	34	32	43	50
Bachelor				
Number of graduates	**3,200**	**4,900**	**15,100**	**10,600**
Percentage of graduates with debt	9	15	45	31
Average debt at graduation ($)	2,700	7,000	16,200	34,900
Without debt two years after graduation (%)	54	32	18	12
Reported difficulties repaying debt (%)	6*	14	21	38
Average debt at graduation for those who still owe two years after graduation ($)	3,000	7,100	16,500	35,400
Average debt at graduation for those without debt two years after graduation ($)	2,400	6,800	14,800	31,700
Average remaining debt two years after graduation for those who still owe ($)	1,900	5,100	12,600	27,374
Employed in 2002 (%)	89	89	89	92
Without income in 2001 (%)	F	F	1**	1**
Average amount paid in 2001 ($)	700	1,300	2,700	4,200
Average income in 2001 ($)	31,300	32,400	32,600	35,500
Ratio of debt payments to income	2	4	8	12
Debt servicing ratio – 25th percentile	1*	3	5	6
Debt servicing ratio – Median	2	4	7	11
Debt servicing ratio – 75th percentile	4	7	11	17
Average age at graduation (years)	26	26	25	26
Median age at graduation (years)	24	24	24	25
Married or living common-law (%)	38	40	37	37
With dependents (%)	22*	19	14	18
With previous postsecondary education (%)	63	59	58	52

Table A-9 (concluded)

Profile of 2000 graduates who owed money to government student loans at graduation, by level of study and size of debt

	Small	Medium	Average	Large
	Less than $5,000	$5,000-$9,999	$10,000 - $24,999	Over $25,000
Master				
Number of graduates	**700**	**1,400**	**3,600**	**2,000**
Percentage of graduates with debt	10	18	47	26
Average debt at graduation ($)	2,700	6,900	16,000	35,900
Without debt two years after graduation (%)	63	49	22	10*
Reported difficulties repaying debt (%)	8**	10**	17	38
Average debt at graduation for those who still owe two years after graduation ($)	3,200	7,100	16,100	35,900
Average debt at graduation for those without debt two years after graduation ($)	2,400	6,700	15,600	35,900
Average remaining debt two years after graduation for those who still owe ($)	2,300	4,700	12,500	28,600
Employed in 2002 (%)	88	95	89	90
Without income in 2001 (%)	x	x	F	x
Average amount paid in 2001 ($)	826	1,495	2,854	4,100
Average income in 2001 ($)	43,000	44,500	40,800	41,700
Ratio of debt payments to income	2	3	7	10
Debt servicing ratio – 25th percentile	F	2	4	6
Debt servicing ratio – Median	2*	3	6	9
Debt servicing ratio – 75th percentile	3	6	F	13
Average age at graduation (years)	30	30	29	29
Median age at graduation (years)	27	28	27	27
Married or living common-law (%)	64	53	55	38
With dependents (%)	21*	22	24	20
With previous postsecondary education (%)	97	99	94	94
Doctorate				
Number of graduates	**100**	**200**	**600**	**400**
Percentage of graduates with debt	10	17	46	27
Average debt at graduation ($)	3,200	7,000	15,900	37,700
Without debt two years after graduation (%)	48	39	29	16
Reported difficulties repaying debt (%)	14*	5*	11	35
Average debt at graduation for those who still owe two years after graduation ($)	3,300	7,000	16,400	38,400
Average debt at graduation for those without debt two years after graduation ($)	3,000	6,900	14,600	34,000
Average remaining debt two years after graduation for those who still owe ($)	2,100	4,700	12,200	31,000
Employed in 2002 (%)	94	93	93	86
Without income in 2001 (%)	x	F	x	F
Average amount paid in 2001 ($)	900	1,500	2,600	5,200
Average income in 2001 ($)	50,000	56,800	62,200	53,300
Ratio of debt payments to income	2	3	4	10
Debt servicing ratio – 25th percentile	1	2	3	6
Debt servicing ratio – Median	2	2	4	10
Debt servicing ratio – 75th percentile	3	3	7	16
Average age at graduation (years)	33	34	33	34
Median age at graduation (years)	32	32	32	32
Married or living common-law (%)	79	74	70	57
With dependents (%)	55	45	40	36
With previous postsecondary education (%)	95	99	100	99

Note: Graduates who pursued further education after their 2000 graduation are excluded from this table.
Averages and numbers are rounded to the nearest 100, but analysis is carried out on unrounded values.

Table A-10

Profile of debt to government student loan programs, by level of study and field of study (major fields and selected minor fields) (Class of 2000)

	Number of graduates	Debt owing at graduation (%)	Debt profile of graduates who owed at graduation: Average owed at graduation ($)	Without debt two years after graduation (%)	Reporting difficulties repaying debt (%)	Large debt at graduation – $25,000 and over (%)	Average remaining debt for those who still owed two years after graduation ($)
College							
Total	75,100	41	12,600	18	30	12	10,300
Education	4,400	35	11,000	F	38	F	8,400
Visual and Performing Arts, and Communications Technologies	4,300	45	15,000	14*	37	15**	12,800
Humanities	600*	50*	16,800	x	F	F	12,300
Social and Behavioural Sciences, and Law	4,200	45	12,200	17**	28*	F	9,700
Communications, Journalism, and Related Programs	1,800	41	11,500	F	28**	F	9,100*
Legal Professions and Studies	1,300	53	12,200	x	F	x	9,600*
Business, Management and Public Administration	18,000	41	13,500	13	33	13*	11,000
Physical and Life Sciences, and Technologies	1,000	59	12,700	18**	24**	F	10,700
Mathematics, Computer and Information Sciences	7,500	40	13,900	29	36	19*	12,400
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	7,200	40	14,200	28	37	20*	12,500
Architecture, Engineering and Related Technologies	15,300	38	10,900	23	25	10*	9,000
Engineering Technologies/Technicians	7,600	42	12,800	26*	22	15*	10,800
Mechanic and Repair Technologies/Technicians	3,300	33	7,500	19*	24*	x	6,100
Agriculture, Natural Resources and Conservation	2,200	44	11,300	21*	26	F	9,900
Agriculture, Agricultural Operations, and Related Sciences	1,200	37	10,400	29*	27*	x	10,300
Natural Resources and Conservation	1,000	53	12,000	13**	25*	F	9,600
Health, Parks, Recreation and Fitness	12,600	42	12,200	20	22	9*	9,400
Nursing	2,800	51	13,900	21**	26*	15**	10,200
Other Health Professions and Related Clinical Sciences	8,800	40	11,400	21	20	8**	9,000
Personal, Protective and Transportation Services	4,900	40	12,200	15*	33	F	10,200
Personal and Culinary Services	2,100	40	10,200	21**	41	F	8,500
Security and Protective Services	2,300	40	12,800	F	24**	F	10,100
Other	F	F	F	F	F	F	F
Bachelor							
Total	78,900	45	19,400	22	24	31	15,300
Education	13,500	54	18,500	21	27	29	15,400
Visual and Performing Arts, and Communications Technologies	4,000	44	16,000	18**	26*	18*	13,000
Humanities	6,300	31	18,400	22*	33	27	17,000
Social and Behavioural Sciences, and Law	14,800	43	19,300	21	26	33	15,800
Social Sciences and Related Interdisciplinary Fields	6,800	42	19,600	17**	27*	36*	15,600
Psychology and Related Interdisciplinary Fields	3,100	41	19,100	30**	22**	33**	15,700
Legal Professions and Studies	1,700	60	21,200	16	26**	39*	16,900
Business, Management and Public Administration	14,300	38	17,300	20	21	25	14,400
Physical and Life Sciences, and Technologies	4,300	44	21,300	23	35	34	18,200
Mathematics, Computer and Information Sciences	3,400	45	18,600	32	14**	27*	16,900
Mathematics and Statistics and Related Interdisciplinary Fields	800	41*	17,100	31**	x	F	15,100
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	2,500	47	19,100	32*	17**	30*	17,400
Architecture, Engineering and Related Technologies	6,700	49	18,900	26	18	32	15,500
Architecture and Related Services and Related Interdisciplinary Studies	500*	47*	19,900*	x	F	F	16,300*
Engineering	6,000	50	18,900	27	18	32	15,500
Agriculture, Natural Resources and Conservation	2,200	56	18,900	25	27*	28*	16,400
Agriculture, Agricultural Operations, and Related Sciences	1,200	58	18,800	30**	27**	F	15,300
Natural Resources and Conservation	1,100	54	18,900	F	28**	33*	17,500
Health, Parks, Recreation and Fitness	9,000	51	25,400	23	18	49	20,700
Medicine	600	80	38,200	26**	F	75*	28,600
Nursing	3,400	44	21,000	16	16*	37	17,300
Other Health Professions and Related Clinical Sciences	3,200	55	27,700	30	11*	53	23,200
Parks, Recreation, Leisure and Fitness Studies	1,600	45	20,100	x	37**	44**	18,200*
Personal, Protective and Transportation Services	300*	F	33,400	x	F	79	35,300
Other	100**	x	x	x	x	x	x

Table A-10 (concluded)

Profile of debt to government student loan programs, by level of study and field of study (major fields and selected minor fields) (Class of 2000)

	Number of graduates	Debt owing at graduation (%)	Debt profile of graduates who owed at graduation: Average owed at graduation ($)	Without debt two years after graduation (%)	Reporting difficulties repaying debt (%)	Large debt at graduation – $25,000 and over (%)	Average remaining debt for those who still owed two years after graduation ($)
Master							
Total	20,900	38	18,200	28	20	26	16,100
Education	3,400	19	16,700	42*	19*	F	17,300*
Visual and Performing Arts, and Communications Technologies	600*	55	20,100	F	29**	29**	19,000
Humanities	1,600	43	17,100	24*	29*	21	14,500
Social and Behavioural Sciences, and Law	2,700	50	18,500	24	26*	28*	17,000
Business, Management and Public Administration	6,600	36	17,600	29	18	24	16,400
Physical and Life Sciences, and Technologies	1,000	43	16,200	16*	15*	22*	12,100
Mathematics, Computer and Information Sciences	800	50	17,700	41	16*	22*	15,800
Mathematics and Statistics and Related Interdisciplinary Fields	200	45	17,600	56*	x	x	17,500
Computer and Information Sciences and Support Services and Related Interdisciplinary Fields	300	38	15,600	40*	x	x	12,800
Library Science	300	65	18,900	35*	20**	27*	16,700
Architecture, Engineering and Related Technologies	1,800	44	19,300	32	16	28	15,600
Architecture and Related Services and Related Interdisciplinary Studies	300	68	25,600	22*	26*	49	19,600
Engineering	1,400	39	16,800	36	12*	20	13,700
Agriculture, Natural Resources and Conservation	800	46	18,700	20*	19*	26*	15,000
Agriculture, Agricultural Operations and Related Sciences	300	43	20,000	x	x	33**	17,300
Natural Resources and Conservation	500	47	18,100	F	17**	22*	14,000
Health, Parks, Recreation and Fitness	1,700	40	21,300	22*	16*	32	17,000
Other Health Professions and Related Clinical Sciences	900	44	21,600	24*	18*	35	16,500
Parks, Recreation, Leisure and Fitness Studies	300**	F	15,400*	x	x	x	13,900*
Personal, Protective and Transportation Services	F	F	F	F	F	F	F
Other	x	x	x	x	x	x	x
Doctorate							
Total	3,700	38	19,000	29	17	27	16,400
Education	200	24	24,400	x	x	x	23,500
Visual and Performing Arts, and Communications Technologies	F	x	x	x	x	x	x
Humanities	500	42	23,000	31	32	36	19,600
Social and Behavioural Sciences, and Law	700	43	20,300	28	21	32	18,500
Business, Management and Public Administration	100	x	x	x	x	x	x
Physical and Life Sciences, and Technologies	900	29	16,500	33	14	27	13,900
Mathematics, Computer and Information Sciences	200	26	11,800	x	x	x	7,800
Architecture, Engineering and Related Technologies	500	29	13,600	30	x	x	10,600
Engineering	500	29	13,300	31	x	x	10,400
Agriculture, Natural Resources and Conservation	100	30	15,500	x	x	x	15,000
Health, Parks, Recreation and Fitness	500	67	20,400	27*	x	27	16,900
Other Health Professions and Related Clinical Sciences	200	51	21,400	x	x	38*	17,500
Personal, Protective and Transportation Services	F	F	F	F	F	F	F
Other	x	x	x	x	x	x	x

Note: Graduates who pursued further education after their 2000 graduation are excluded from this table.

Fields of study in bold represent major fields of study, while non-bolded fields represent a sub-set of the major field of study.

Averages and numbers are rounded to the nearest 100, but analysis is carried out on unrounded values.

Table A-11

Profile of 2000 graduates in Medicine (M.D.s) who owe money to government student loans at graduation

Number of graduates	**600**
Percentage of graduates with debt	80
Average debt at graduation ($)	38,200
Large debt at graduation – $25,000 and over (%)	75
Without debt two years after graduation (%)	26**
Reported difficulties repaying debt (%)	F
Average remaining debt for those who still owe two years after graduation ($)	28,600
Employed in 2002 (%)	99
Without income in 2001 (%)	x
Average amount paid in 2001 ($)	5,300
Average income in 2001 $)	45,500
Ratio of debt payments to income	12
Debt servicing ratio – 25th percentile	4
Debt servicing ratio – Median	11
Debt servicing ratio – 75th percentile	16
Average age at graduation (years)	28
Median age at graduation (years)	27
Married or living common-law (%)	36*
With dependents (%)	F
With previous postsecondary education (%)	F

Note: Graduates in medicine (M.D.s) who pursued further education after their 2000 graduation are excluded from this table.
Averages and numbers are rounded to the nearest 100, but analysis is carried out on unrounded values.

Appendix B: Methodology

Objectives

The 2002 National Graduates Survey (Class of 2000), (NGS2000), seeks to profile the transition of 2000 postsecondary graduates from school to the labour market and their acquisition of their first work experience. The 2000 version of the survey follows on past surveys of graduates, conducted approximately every five years since the early 1980s.

Target population

The population of interest for NGS2000 consists of all persons graduating from a recognized Canadian postsecondary institution who completed an eligible program or obtained their diploma during the 2000 calendar year.

These include:

- any graduate of a university program leading to a bachelor, master or doctoral degree or a specialized certificate or diploma;
- any graduate of a postsecondary program (i.e., a program of one year's duration or longer which normally requires secondary school completion or its equivalent for admission) offered by a college of applied arts and technology (CAAT), *Collège d'enseignement general et professionnel* (CEGEP), a community college, a technical school or a similar institution;
- any graduate of skilled trades (i.e., graduate of a pre-employment program usually of three months' duration or longer). A vocational or trade school is a public educational institution that offers courses to prepare for employment in a given trade, such as that of a heavy machine operator, an automobile mechanic or an upholsterer. Many community colleges and technical institutions offer trade certificates or diplomas.

The survey excludes:

- graduates of private postsecondary educational institutions (i.e., computer training schools or commercial secretarial schools);
- persons who completed continuing education courses at a university or college (unless these led to a degree or diploma);
- individuals who took part-time trade courses (e.g., adult education evening courses) while employed full-time;
- persons who completed vocational training programs lasting less than three months or programs not offered in the skilled trades (e.g., basic training or skill development programs) and
- persons in apprenticeship programs.

Survey methodology

The sampling frame of NGS2000 was constructed from lists of graduates, supplied by participating institutions in response to information requests that Statistics Canada sent them in order to cover the target population. The sampling frame includes nearly 315,000 graduates.

The sampling plan for NGS2000 is based on a stratification of the graduate population by province of institution, education level and major field of study. The province of institution can be any of Canada's ten provinces or three territories. Education levels include five classes: trade/vocational training, college, bachelor degree or its equivalent, master degree or its equivalent, and doctorate or its equivalent. Major fields of study, which number either eight or nine depending on the education level, group together study programs according to the associated codes, based on the Classification of Instructional Programs.

The sample was distributed among the strata in such a way as to meet analytical needs. The resulting sampling ratios per stratum are fairly high. They range between 20% and 100% in some cases, such as for holders of a doctorate or its equivalent. A random selection of graduates within each stratum was then carried out to obtain a representative sample large enough to meet the main needs of the survey.

The information required from the approximately 60,000 graduates in the sample was collected by computer assisted telephone interviewing during the summer of 2002. The information collected then underwent extensive validation to determine its consistency.

Data quality and limitations on scope of data

The figures presented in this report are estimates based on the information collected from NGS2000 respondents. As in any statistical survey process, the NGS2000 estimates contain two types of error: sampling error and non-sampling error.

The sampling error of an estimate results from the random composition of the sample, which never yields exactly the estimate that would be obtained if the data were collected from the entire population. The magnitude of the sampling error may be evaluated and measured, and this report provides such measurements for each of the estimates based on the data collected from the sample of graduates for NGS2000.

If the sampling error measurement for an estimate exceeds 33%, then the estimate is not considered sufficiently reliable to be released. An estimate with an associated measurement that lies between 16.5% and 33% must be used with caution, since its reliability does not allow for firm conclusions.

All types of error other than that resulting from the random composition of the sample are known as non-sampling errors. In general, these types of error are difficult to detect or measure adequately, and it is also hard to mitigate their effects when developing estimates.

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The unweighted response rate for NGS2000 was approximately 70%. This rate is not uniform, differing notably from one province to another and from one education level to another. To mitigate the effects of non-response, adjustments were made to the data collected, and these adjustments affect the variability of the estimates calculated.

In the sampling frame of NGS2000, graduates of colleges in southern Alberta are undercovered. Unlike with non-response, the undercoverage of this group cannot be offset by a reweighting adjustment. This is because the characteristics relating to graduates in this part of Alberta may reasonably be thought to differ considerably from those of Alberta graduates for whom the coverage is appropriate, and therefore a reweighting of the graduates covered would only introduce a bias in the estimate of the characteristics of graduates from colleges in southern Alberta.

Endnotes

1. According to the 2001 Census, 51% of Canadians aged 15 and over had completed some kind of postsecondary education.
2. In 2000, 41% of Canadian adults (aged 25 to 64) had college or university qualifications, the highest proportion reported in any OECD country. (Statistics Canada, PCEIP Table D6.4)
3. A previous report on the 2000 Follow-up Survey of 1995 Graduates, Finding Their Way: a profile of young Canadian graduates (Allen, Harris and Butlin, 2003), examines the outcomes of the population of young graduates who entered their programs immediately after high school and did not complete any further education after graduation.
4. Information on activities prior to entry into their program are based on school attendance and highest level of education prior to entering their program.
5. Graduates were considered to have entered their programs "directly from high school" if they a) had reported no education beyond high school and b) were going to school 12 months prior to entering their program.
6. Information on pursuit of further education is not available for the Class of 1995.
7. According to the 2002 Postsecondary Education Participation Survey, only 26% of young postsecondary students (aged 18 to 24) used government student loans to finance their current academic year. However, the median amount for those who borrowed was $5,000, a substantial amount when compared to the typical cost for that year ($11,200 for university students, and $9,330 for college) (Barr-Telford, et. al., 2003).
8. In order to facilitate debt payment calculations, mean averages are used in this analysis. Unlike medians, which indicate the typical amount owed, with half of debtors owing more and half owing less, mean debt amounts may be influenced by higher values. However, means are necessary for analysis which requires calculations such as debt repayment rates. Exploratory analysis of these data suggest that there are no substantial differences between the means and the medians for the estimates provided. That is, the impact of any outliers on the means is small.
9. While the likelihood of using non-government loans ranges between 15% and 20% at college and university levels, graduates with higher degrees borrowed greater amounts from non-government sources and less from government student loan programs.
10. In order to make comparisons to the 1990 and 1995 NGS, student loan calculations are restricted to those graduates who have not completed any further studies, but who may have pursued further studies without completion. All comparisons are made in 2000 constant dollars. Information on amounts owing to other sources at graduation is not available for 1995 graduates.
11. Medicine graduates are included at the bachelor level as an M.D. is considered a first professional degree rather than a graduate degree.

Culture, Tourism and the Centre for Education Statistics

Research Papers

Cumulative Index

Statistics Canada's **Division of Culture, Tourism and the Centre for Education Statistics** develops surveys, provides statistics and conducts research and analysis relevant to current issues in its three areas of responsibility.

The **Culture Statistics Program** creates and disseminates timely and comprehensive information on the culture sector in Canada. The program manages a dozen regular census surveys and databanks to produce data that support policy decision and program management requirements. Issues include the economic impact of culture, the consumption of culture goods and services, government, personal and corporate spending on culture, the culture labour market, and international trade of culture goods and services. Its analytical output appears in the flagship publication *Focus on Culture* (www.statcan.ca/english/IPS/Data/87-004-XIE.htm) and in *Arts, culture and recreation – Research papers*.

The **Tourism Statistics Program** provides information on domestic and international tourism. The program covers the Canadian Travel Survey and the International Travel Survey. Together, these surveys shed light on the volume and characteristics of trips and travellers to, from and within Canada. Its analytical output appears in the flagship publication *Travel-log* (www.statcan.ca/english/IPS/Data/87-003-XIE.htm) and in *Travel and tourism – Research papers*.

The **Centre for Education Statistics** develops and delivers a comprehensive program of pan-Canadian education statistics and analysis in order to support policy decisions and program management, and to ensure that accurate and relevant information concerning education is available to the Canadian public and to other educational stakeholders. The Centre conducts fifteen institutional and over ten household education surveys. Its analytical output appears in the flagship publication *Education quarterly review* (www.statcan.ca/english/IPS/Data/81-003-XIE.htm), in various monographs and in *Education, skills and learning – Research papers* (www.statcan.ca/english/IPS/Data/81-595-MIE.htm).

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